

RIO-COAT ECR Novolac

Acid/Chemical Resistant Colored Novolac Epoxy Seal

PRODUCT DESCRIPTION

RIO COAT ECR Novolac is a two-component, colored high solids Novolac epoxy coating designed for application where splash and spills of acids, chemicals, and solvents occur.

APPLICATIONS

- high build topcoat for traffic areas
- chemical troughs and curbs
- tanks and chemical spill areas for cement masonry or brick

TYPICAL PROPERTIES	
Standard Colors:	Light gray, medium gray, and tile red
Solids by Weight:	96% (+/- 1%)
Solids by Volume:	94% (+/- 1%)
VOC Content:	Less than 44 g/l
Recommended Film Thickness:	16-18 mils
Mix Ratio:	10.15 pounds (1 gallon) part A to 4.2 pounds (.50 gallons) part B (volumes approx.)
Shelf Life:	1 year in unopened containers
Finish Characteristics:	Gloss (>40 at 60 degrees @ glossmeter)
Flexural Strength:	9,610 psi @ ASTM D790- 1/2"X1/2" bars span 4"
Compressive Strength:	9,900 psi @ ASTM D695
Tensile Strength:	6,680 psi @ ASTM D638
Adhesion:	425 psi @ elcometer (concrete failure, no delamination)
Ultimate Elongation:	4.7%
Hardness:	Shore D = 88
Gardner Variable Impactor:	50 inch pounds direct (passed)
Abrasion Resistance:	Taber abraser CS-17 calibrase wheel with 1000 gm total load and 500 cycles= 20 mg loss
Mixed Viscosity:	2200-2700 cps (typical)
Heat Deflection Temp:	115.5° F
Primer:	Recommended NP257
Topcoat:	None recommended

The data shown above reflects typical results based on laboratory testing under controlled conditions and are not specifications. Variations from the data shown may result. Test methods are modified where applicable.

DOT CLASSIFICATIONS

Part A "not regulated"
Part B "CORROSIVE LIQUID N.O.S., 8, UN1760, PGIII"

CURE SCHEDULE: (70°F)

Pot Life (1 ½ gallon volume) 25-35 minutes tack free
Dry to touch 5-7 hours
Recoat or Topcoat 5-10 hours
Light Foot Traffic 10-18 hours
Full Cure (heavy traffic) 2-7 days

Application Temperature: 60-95 degrees F with relative humidity below 90%.

CHEMICAL RESISTANCE

REAGENT	RATING
xylene	D
1,1,1 trichloroethane	C
MEK	C
methanol	C
ethyl alcohol	C
skydrol	C
10% sodium hydroxide	E
50% sodium hydroxide	E
10% sulfuric acid	E
70% sulfuric acid	C
10% HC1 (aq)	D
5% acetic acid	D

Rating key: A—not recommended, B—2 hour term splash spill, C—8 hour term splash spill, D—72 hour immersion, E—long term immersion. *NOTE: Extensive chemical resistance information is available through your sales representative.*

PACKAGING & COVERAGE

- 3 gallon kit (volume approximate)
- 15 gallon kits (volume approximate)

90-100 SF per gallon @ 16-18 mils

LIMITATIONS

- Color stability or gloss may be affected by environmental conditions such as high humidity, low temperature or chemical exposure.
- Colors may vary from batch to batch. Therefore, use only product from the same batch for an entire job.
- This product is not UV color stable and exposure to lighting such as sodium vapor lights may cause discolorations.
- Mixtures of chemicals and applications with exposures to chemicals at elevated temperatures should be thoroughly evaluated before applying coating. A test patch is recommended.
- Product can develop surface irregularities in leveling in combination to some chemical contamination or substrate compositions.
- Substrate temperature must be 5°F above dew point.
- All new concrete must be cured for at least 30 days prior to application.

INSTALLATION STEPS

PREPARATION

Concrete must be cured for 28 days prior to coating, structurally sound, and free of contaminants including but not limited to waxes, loose paint, dust, dirt, grime, oils, release agents, curing compounds, and any surface laitance (a layer of weak and non-durable material). Concrete should be shot-blasted or diamond ground to achieve a minimum CSP 2 or CSP 3 profile (30-80 grit metal-bond diamonds).

Moisture Vapor Emissions Precautions: All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings. A moisture test should be performed resulting in a maximum MVT rate of 3 pounds per 1000 Sq. Ft. in 24 hours. Readings must be below 75% relative internal concrete humidity. RIO can supply moisture remediation products and information. Consult your Rio representative for more information. RIO and its representatives or sales agents will not be responsible for coating failures due to undetected moisture vapor emissions.

Note: Although testing is critical, it is not a guarantee against future problems. This is especially true if there is no vap or barrier or the vapor barrier is not functioning properly and/or you suspect you may have concrete contamination from oils, chemical spills or excessive salts.

Check the temperature and humidity: Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 80%. DO NOT coat unless floor temperature is more than five degrees over the current, local dew point.

Concrete Preparation options

Steel Shot Blast: Use magnetic broom to remove excess shot, sweep to remove large debris and vacuum to remove fine dust.

Grinding: Sweep to remove large debris and vacuum to remove fine dust.

Filling Joints: Depending on the preference of the facility owner, joints may or may not be filled. If the joints are filled, non-moving joints, i.e. contraction or control joints, can be hard filled with thickened epoxy or with a semi-rigid joint filler.

Isolation or expansion joints must be filled with a flexible material designed for this purpose. Coating applied over filled joints may crack if there is concrete movement.

Priming: A suitable primer should be used before applying this product. See the front side of this technical data for primer.

MIXING

This product has a mix ratio of 10.15# part A to 4.2# part B for standard colors. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.

APPLICATION

The mixed material can be applied by brush or roller. For best results, apply with a 1/4" nap roller. However, the material can also be applied by a suitable serrated squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating.

Recoat or Topcoatings: If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. However, all previous coats should be deglossed to ensure a trouble-free bond prior to application of recoats or topcoats. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to ensure no epoxy blushes were developed (a whitish, greasy film, or deglossing.) If a blush is present, it must be removed prior to topcoating or recoating. Multiple coats of this product are acceptable and can be used to achieve greater chemical resistance and build.

Cleanup: Use xylol

Restrictions: Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.

MAINTENANCE

Floor Cleaning: Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT. We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.